

ABSTRACT

Sensorless control of an induction motor, such as for electric vehicles, in which the speed of an induction motor is determined without encoders or other shaft transducers. When the applied frequency is null, the injection of a triad of direct currents in the stator phases supplies a stationing torque that is opposed to motion. The maximum stationing torque depends on the injected current width. It can be too low, such as if the vehicle is loaded and/or on a grade, or too high if the vehicle is on a plane. With embodiments, one can monitor, at defined time intervals, the speed of the vehicle when the applied frequency is null and with which such dichotomy can be solved. Embodiments can be applied generally to every occurrence of vehicle control loss in order to carry out its efficient recovery in line.